



Presentation to the Waianae Community 2013 Makua Marine Resources Study

March 13, 2013

U.S. Army Garrison-Hawaii

Supporting each Warrior, Family and Community with sustainable services, ensuring power projection readiness from Hawaii.



Agenda

- I. History of the Marine Resources Study**
- II. Community Survey**
- III. Draft Sampling and Analysis Plan Overview**
- IV. Providing Input**
- V. Next Steps**



History of the Marine Resources Study

- **2009: Pursuant to 2001 Settlement Agreement with Malama Makua, Army completed and published results of a multi-year marine resources study to determine:**
 - Do marine resources near Makua contain munitions constituents?
 - Will future training activities contribute munitions constituents to the marine resources?
 - Do these constituents pose a human health risk?
- **Summary of Study:**
 - Sampled 3 limu, 3 crab, 1 prawn, 1 urchin, and 8 fish species
 - One positive sample for RDX (an explosive agent) in fish. RDX was at such a low level, determined not to pose a human health risk.
 - **Conclusion:** Human health risk for consuming marine resources at Makua is the same as at background sites (Nanakuli and Sandy Beach).



History of the Marine Resources Study

- **June 2012: Federal District Court determined that the Army’s methods and procedures for the 2009 study were sufficient; however, the study fell short and required additional study:**
 - Army did not specifically test limu eaten by residents
 - Army did not test “other” marine resources (i.e. sea cucumber and octopus)
 - Army did not determine whether arsenic, if present, was organic or inorganic
- **Additionally, the Army is required to test same species of limu and “other” marine resources at background sites**
- **Fall 2012: Army prepared draft Sampling Analysis Plan (SAP) with community input**



Creating a Plan—Community Survey

- **October 2012:** Army surveyed Waianae Coast Community
- **Goal:** Gather information from the community to help draft Sampling and Analysis Plan.
- Community survey was announced through media and Waianae Coast community leaders, organizations, businesses and civic clubs.

 **U.S. Army Garrison-Hawaii**
Makua Marine Resources Survey
Please return surveys by October 31, 2012. To complete this survey online go to:
https://www.surveymonkey.com/s/Marine_Resources_Survey

The U.S. Army in Hawaii is conducting a Marine Resources study at Makua Beach and is seeking the Leeward Coast community's assistance. The purpose of this study is to determine whether military activities at Makua Military Reservation have impacted marine resources in the area.

As residents, your input is essential in helping us identify, find and test the species that you rely on for food or other purposes. We appreciate your interest and involvement in this study.

In order to validate and be able to utilize the information you are providing, we need you to include your first and last name, and contact information (phone or email).

First and last name: *(required)*

Email / Phone: *(required)*

1) Do you consider yourself a Waianae Coast resident? Yes No

2) Do you rely on ocean resources at Makua Beach — other than fish or shellfish — for food or any purpose besides food? Yes No *(If you checked "no" please skip to question #13.)*

3) If yes, on which of the following do you rely?

limu (seaweed)
 he'e, tako (octopus)
 well/loli (sea cucumber)
 Other _____

4) Please describe the resources you rely on (any that were selected above) as completely as possible, including any common names, nicknames or species. Please be as descriptive as possible; include the size, shapes and/or colors.

5) Do you collect these ocean resources yourself, or do you get them from another source? Check all that apply.
 I collect the resources myself I get the resources from another source. *(If from another source, which source? Please provide contact information for that source, if known.)*

6) If you collect the resources yourself, approximately where at Makua Beach do you get these resources? Please include approximate depth, if known.

(continue on back)



Creating a Plan—Community Survey

- **Survey available online and in-person:**
 - Briefing at Waianae Neighborhood Board, Oct. 2, 2012
 - Briefing at Nanakuli Neighborhood Board, Oct. 16, 2012
 - Talk Story Session at Pililaau Army Recreation Center, Oct. 24, 2012
 - Survey available at Waianae Small Boat Harbor
 - Survey available at Waianae Public Library
- **Received 36 responses**
 - 9 provided actual resources used in the Draft Sampling and Analysis Plan
- **Solicited additional comments by email**



Draft Sampling and Analysis Plan Overview

- **Draft Sampling Analysis Plan released to public Jan. 22, 2013**
- **60-day comment period open Jan. 22 – Mar. 22, 2013**
- **Public meeting conducted Feb. 20, 2013**
 - Transcript available on U.S. Army Garrison-Hawaii website
- **Requested Peer Review of plan from:**
 - State Department of Health
 - National Oceanic and Atmospheric Administration
 - Environmental Protection Agency
 - State Department of Land and Natural Resources



Draft Sampling and Analysis Plan Overview

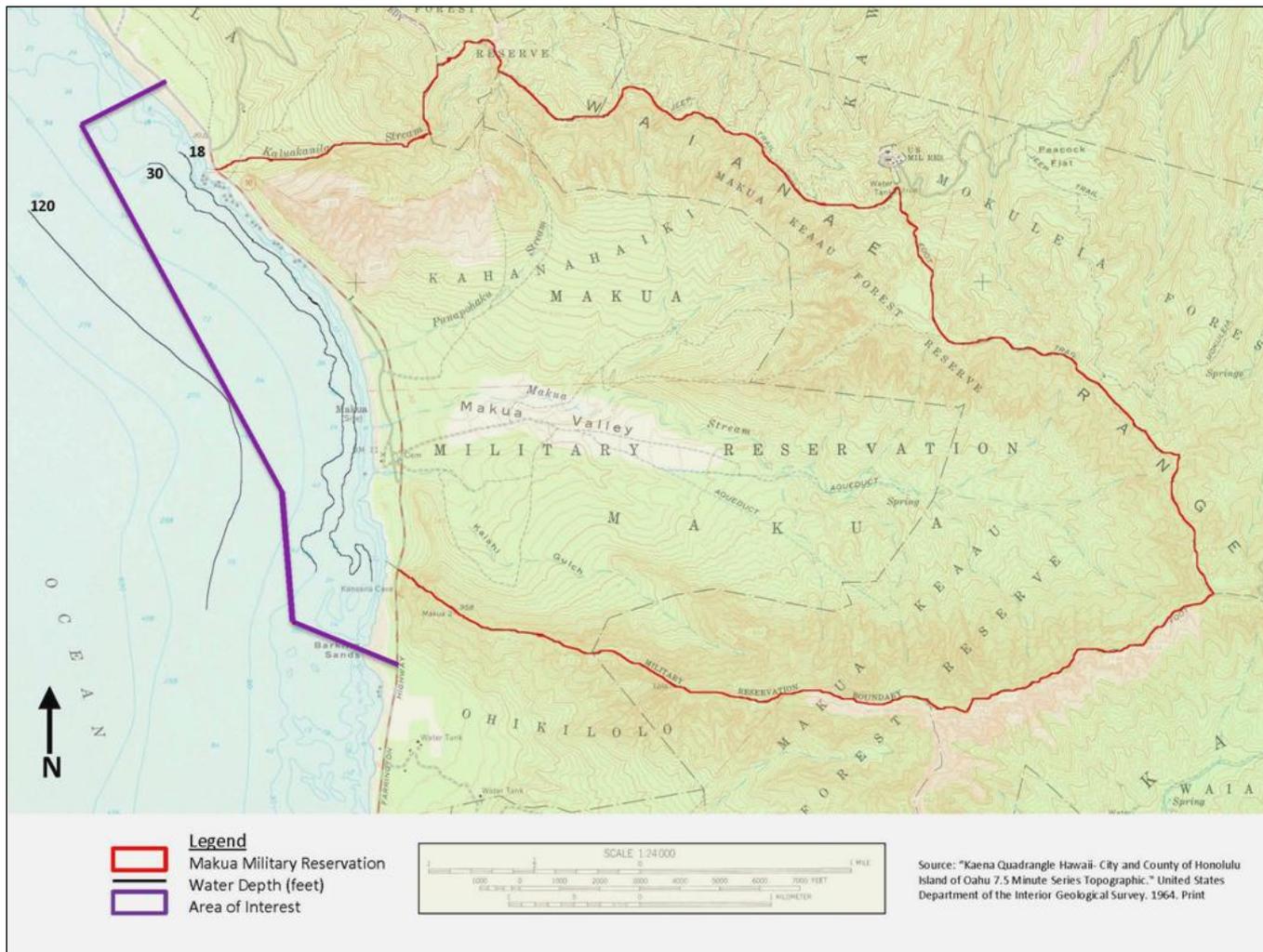
- **Plan proposes 3 potential background sites:**
 - Kaena Point
 - Nanakuli
 - Sandy Beach
- **What species will be collected?**
 - Limu Kohu (seaweed)
 - Day Hee (octopus)
 - Loli (sea cucumber)



Draft Sampling and Analysis Plan Overview

- **How will the species be collected?**
 - Utilize local fisherman for sampling efforts
 - Collect samples in rainy and dry seasons
 - Collection of between 100 to 200 grams (wet weight) is required
 - Sampling will take place from shore to 50 feet
 - Sampling will be conducted by wading, snorkeling and diving
 - Limu will be collected in a sustainable manner (i.e. not by the handful but by hand, with clippers)
 - If limu attachment point is accidentally removed, will secure back in place
 - Samples of each species collected will be kept separate (i.e. no composite sampling)
 - The same species will be collected at Mākua and the background site for comparison

Study area near Makua Beach



Potential Sampling Locations

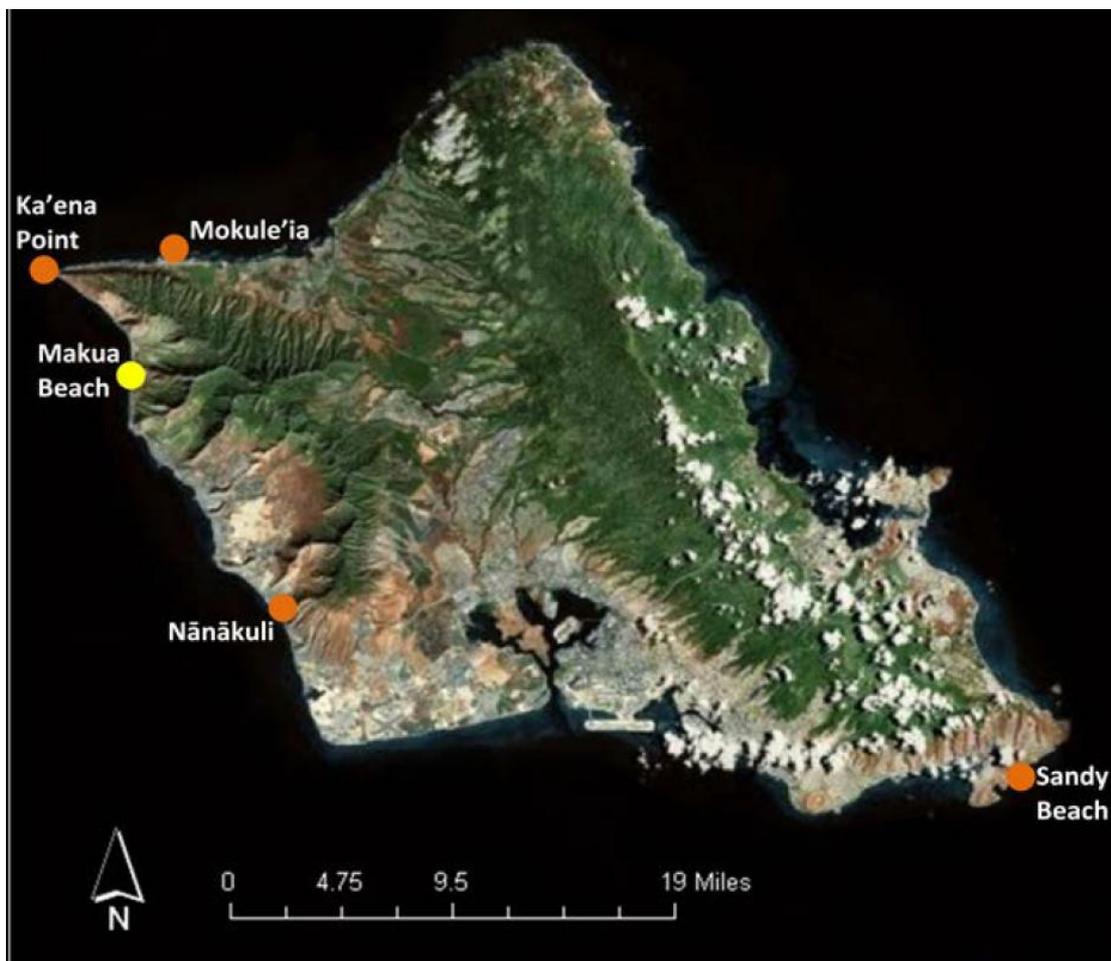
 Makua Beach

Proposed potential background Sites:

 Kaena Point

 Nanakuli

 Sandy Beach



Limu Kohu / Seaweed



Asparagopsis taxiformis

Photo courtesy of University of Hawai'i

Hee / Tako / Day Octopus



Octopus cyanea

Photo courtesy of Hi'ilei Kawelo

Loli / Sea Cucumber



White Spotted Sea Cucumber
Actinopyga mauritiana



Black Sea Cucumber
Holothuria atra



Teated Sea Cucumber
Holothuria whitmaei

Photos courtesy of Keoki Stender
www.marinelifephotography.com



Draft Sampling and Analysis Plan Overview

- **What will happen to the samples?**
 - Samples of each species collected will be kept separate (i.e. no composite sampling)
 - Samples will be submitted within required times to Continental U.S. labs for analysis
 - Samples will be tested for 43 separate compounds as required by the court order (*Forhan List*)
 - Determine if arsenic is organic or inorganic
 - Based on test results, a human health risk assessment will be completed using established Environmental Protection Agency and State Department of Health guideline



How to provide input to the plan now through March 22, 2013

Email:	usaghi.pao.comrel@us.army.mil
Mail:	U.S. Army Garrison – Hawaii, Environmental Division Attn: Marine Study – Public Comments 948 Santos Dumont Ave. Schofield Barracks, Hawaii 96857 <i>(All mailed comments must be postmarked by March 22, 2013)</i>
Today:	A court reporter and comment sheets are available
Questions?	For questions about submitting comments on the plan, call (808) 656-3089



Next Steps

**Draft Sampling
Analysis Plan
(SAP)**



**Public
Comments
(60 Days)**



**Final
Sampling
and
Analysis
Plan**



**Sample
Collection**



**Sampling
Results and
Risk
Assessment**

Fall 2012

**Jan. 22-March 22,
2013**

March 2013

**Wet / Dry
Seasons 2013**

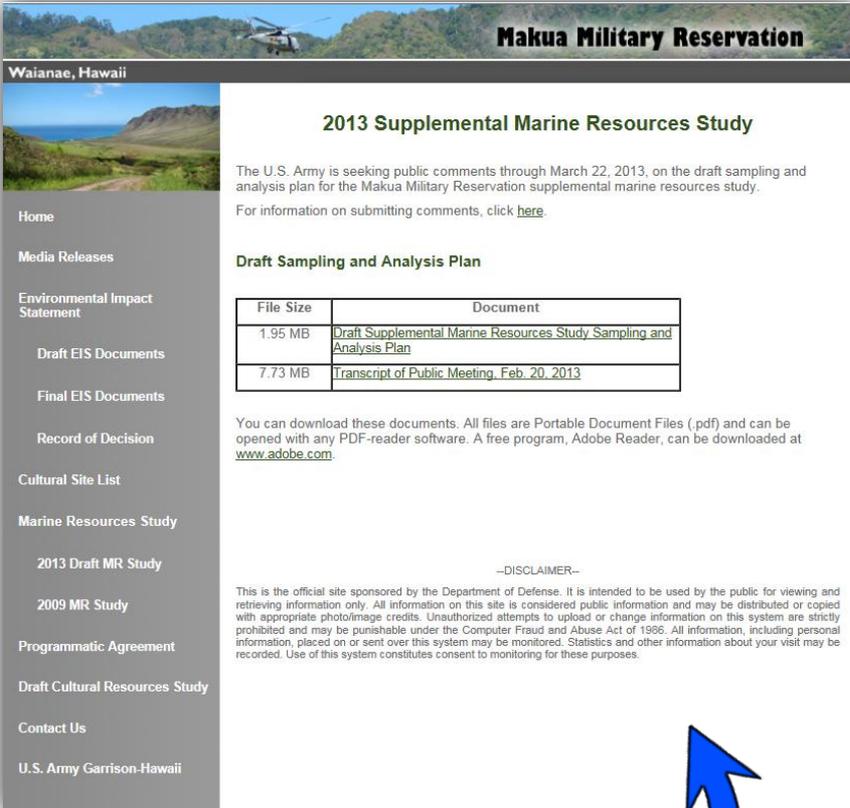
**GOAL:
Complete all
phases by end
of 2013**



We are here!

Next Steps

- Provide briefings to Neighborhood Boards, quarterly or as needed
- Provide updates via community leaders, organizations and local media
- Email updates to interested individuals
- Post updates to U.S. Army Garrison-Hawaii website as needed



Makua Military Reservation

Waianae, Hawaii

2013 Supplemental Marine Resources Study

The U.S. Army is seeking public comments through March 22, 2013, on the draft sampling and analysis plan for the Makua Military Reservation supplemental marine resources study. For information on submitting comments, click [here](#).

Draft Sampling and Analysis Plan

File Size	Document
1.95 MB	Draft Supplemental Marine Resources Study Sampling and Analysis Plan
7.73 MB	Transcript of Public Meeting, Feb. 20, 2013

You can download these documents. All files are Portable Document Files (.pdf) and can be opened with any PDF-reader software. A free program, Adobe Reader, can be downloaded at www.adobe.com.

–DISCLAIMER–

This is the official site sponsored by the Department of Defense. It is intended to be used by the public for viewing and retrieving information only. All information on this site is considered public information and may be distributed or copied with appropriate photo/image credits. Unauthorized attempts to upload or change information on this system are strictly prohibited and may be punishable under the Computer Fraud and Abuse Act of 1996. All information, including personal information, placed on or sent over this system may be monitored. Statistics and other information about your visit may be recorded. Use of this system constitutes consent to monitoring for these purposes.

Home
Media Releases
Environmental Impact Statement
Draft EIS Documents
Final EIS Documents
Record of Decision
Cultural Site List
Marine Resources Study
2013 Draft MR Study
2009 MR Study
Programmatic Agreement
Draft Cultural Resources Study
Contact Us
U.S. Army Garrison-Hawaii

Visit www.garrison.hawaii.army.mil/makua
Click “2013 Draft MR Study”





*Mahalo for your time and
interest in this study*